PROCESSES AND PROPERTIES INDEX

CA

Determination of six-membered and five-membered naphthenes in gasoline-ligroin fractions of Norio crude oil Kh. I. Areshidze and E. M. Benashvili. *Neftyanoe Khoz.* 25, No. 11, 54-7(1947).—To det. the nature of naphthenes present in naphtha from Norio crude oil, the 60-95°, 95-122°, 122-150°, and 150-200° fractions of the naphtha, after purification with H_2SO_4 and alkali, were dearomatized by treatment with H_2SO_4 contg. 1.54% of free SO_3. The aromatic-free fractions were then dehydrogenated over Pd catalyst on activated C. Data on sp. gr., aniline point, n_D^{20}, and group compn. are tabulated for each fraction before and after removal of aromatic compds. and before and after dehydrogenation. The content of cyclohexanes was calcd. from the aniline points of dearomatized fractions. Norio crude oil is distinguished from other Russian crude oils by the following feature: the content of cyclohexanes increases from 8.9% in the 60-95° fraction to 21.8% in the 122-150° fraction and then drops to 14% in the 150-200° fraction which contains 61.4% of other naphthenes. 22 references.

Bruno C. Metzner

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

BENASHVILI, Ye.M.

Isolation of isoparaffin and naphtene hydeocarbons by means of thiourea. Soob. AN Gruz. SSR 17 no.8:689-696 '56. (MLRA 10:3)

1.Akademiya nauk Gruzinskoy SSR, Insitut khimii im. P.G. Melikishvili, Tbilisi. Predstavleno chlenom-korrespondentom Akademii G.V. TSitsishvili.

(Parafins) (Urea derivatives) (Naphthenes)

Benashvili, Ye. M.

USSR /Chemical Technology. Chemical Products and Their Application I-16

Treatment of natural gases and petroleum. Motor fuels. Lubricants.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31900

Author : Areshidze Kh. I., Benashvili Ye. M.

Inst : Academy of Sciences USSR

Title : Investigation of N-Paraffin Hydrocarbons of the 200-250° Fraction of Noriyskaya Petroleum by Means of Urea

Orig Pub: Dokl. AN SSSR, 1956, 110, No 3, 387-389

Abstract: An investigation was made of the 200-250° fraction of Noriyskaya petroleum, isolated by fractionation at a residual pressure of 200 mm Hg.

Card 1/3

USSR /Chemical Technology. Chemical Products and Their Application I-16

Treatment of natural gases and petroleum. Motor fuels. Lubricants.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31900

The fraction was washed with 70% H_2SO_4, 10% solution of soda, and with distilled water, to remove the non-hydrocarbon components. Dearomatization of the fraction was effected with H_2SO_4 sp. gr. 1.84. Thereafter the normal paraffinic hydrocarbons were isolated with urea, the amount of which was taken on the basis of the mean molecular weight of the fraction. The thus separated n-paraffin hydrocarbons were extracted with ethyl ether, after the removal of which the mixture of n-paraffins was fractionated in a column having the effectiveness of 45 theoretical plates at a residual pressure of 10 mm Hg. The individ-

Card 2/3

USSR /Chemical Technology. Chemical Products and Their Application I-16

Treatment of natural gases and petroleum. Motor fuels. Lubricants.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31900

ual n-paraffin hydrocarbons were found to be concentrated in the fractions having the boiling points of 215-216°, 234-235°, 253-254° and 269-270°. From the investigated fraction of Noriyskaya petroleum were isolated the following n-paraffin hydrocarbons: dodecane, tridecane, tetradecane, pentadecane, identified by their physical properties and by the method of infrared spectroscopy.

Card 3/3

COUNTRY : Rumania H-23
CATEGORY :

ABS. JOUR. : RZKhim., No. 21 1959, No. 76103

AUTHOR : Areshivze, Kh. I. and Benashvili, Ye. M.
INST. : Iasi Polytechnic Institute
TITLE : The Quantitative Determination of 5- and 6-membered Cyclanes in Gasoline-Ligroin Fractions from Nori Crude
ORIG. PUB. : Bul Inst Politehn Iasi, 3, No 3-4, 103-108 (1957)

ABSTRACT : The method of selective dehydrogenation catalysis of N. D. Zelinskiy has been applied to the quantitative determination of the content of 5- and 6-membered cyclanes in gasoline-ligroin fractions from Nori crude. The latter is characterized by a low content of aromatics and a high content of paraffins. It has been found that the amount of 5-membered cyclanes found increases with increasing bp of the fractions (60-95°, 95-122°, 122-150°, 150-200°). The content of hydroaromatic hydro-

CARD: 1/2

BENASHVILI, Ye.M.

Action of urea and thiourea on gasoline obtained from Mirzaani petroleum [in Georgian with summary in Russian]. Trudy Inst. khim. AN Gruz. SSR 13:183-193 '57. (MIRA 11:4)
(Urea) (Mirzaani--Petroleum)

BENASHVILI, Ye.M.

USSR/Chemical Technology - Chemical Products and Their Application. Treatment of Natural Gases and Petroleum. Motor and Jet Fuels. Lubricants. I-8

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2568

Author : Benashvili, Ye.M.

Inst : Institute of Chemistry, Academy of Sciences Georgian SSR

Title : Action of Urea and Thiourea on Gasoline of Mirzaanskaya Petroleum.

Orig Pub : Tr. In-ta khimii AN GruzSSR, 1957, 13, 188-193

Abstract : An investigation of the paraffinic hydrocarbons of Mirzaanskaya petroleum gasoline with the use of urea and thiourea. Isotation of the n-paraffins from fractions boiling up to 150° is not feasible with urea since the complex that is formed with urea dissociates at room temperature. By the use of urea n-paraffin hydrocarbons of

Card 1/2

BENASHVILI, Ye.M.

New complexes formed between urea and thiourea. Trudy Inst.khim. AN Gruz.SSR 14:137-149 '58. (MIRA 13:4)
(Urea)

ARESHIDZE, KH.I.; BENASHVILI, Ye.M.

Investigating hexahydroaromatic hydrocarbons of Noric gasolines by dehydrogenating catalysis. Soob. AN Gruz. SSR 20 no. 3:291-297 Mr '58. (MIRA 11:7)

1. AN GruzSSR, Institut khimii im. P.G.Melikishvili. Predstavleno chlenom-korrespondentom Akademii G.V.TSitsishvili.
(Hydrocarbons)

BENASHVILI, Ye.M.

Extraction of cyclohexane from petroleum with the use of thiourea. Zhur. prikl. khim. 33 no.6:1374-1380 Je '60. (MIRA 13:8)

1. Institut khimii imeni P.G.Melikishvili AN GruzSSR.
(Urea) (Cyclohexane)

40396
S/081/62/000/013/039/054
B156/B101

11.0120

AUTHORS: Areshidze, Kh. I., Benashvili, Ye. M., Kikvidze, A. V.

TITLE: The isomerization of homologous compounds of cyclopentane included in the composition of Norio and Mirzaani gasolines, carried out in the presence of gumbrin

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 13, 1962, 530, abstract 13M171 (Tr. In-ta khimii AN GruzSSR, v. 15, 1961, 189-202)

TEXT: It has been established that the cyclopentane hydrocarbons (CH) contained in the 60-150°C Norio gasoline fraction are 19.8 % isomerized into hydroaromatic hydrocarbons in the presence of gumbrin and 29.5 % isomerized into the hydroaromatic carbons when in contact with gumbrin activated with 25 % HCl. In the presence of activated gumbrin there is 40 % isomerization of the CH included in the composition of the dearomatized catalyzate from the 150-200°C Norio petroleum fraction. On investigating the isomerization of the CH included in the composition of Mirzaani petroleum (the 60-150°C fraction) into cyclohexane hydrocarbons it was found that the maximum isomerization effect occurs in the presence of gumbrin activated by 30 %

Card 1/2

The isomerization of homologous... S/081/62/000/013/039/054
B156/B101

HCl. The largest amount of isomerized homologous compounds of CH, in relation to the total amount of these hydrocarbons is 49.7 %.
[Abstracter's note: Complete translation.]

Card 2/2

43705

S/204/62/002/002/002/007
IC60/I242

AUTHOR: Benashvili, Ye.M.

TITLE: Separation of methylcyclopentane and cyclohexane from petroleum fractions

PERIODICAL: Neftekhimiya, v.2, no.2, 1962, 160-163

TEXT: The purpose of this work was to determine the optimum conditions for separation of methylcyclopentane from petroleum by the method of complex-formation with thiocarbamide and subsequent distillation. This method is of particular importance to the Soviet industry, as light fractions of many Soviet crudes are rich in naphthenic hydrocarbons. The hydrocarbons content of naphthenic concentrates, and the composition of obtained fractions corresponding to methylcyclopentane and cyclohexane were determined by gas-liquid chromato-

Card 1/2

S/204/62/002/002/002/007
I060/I242

Separation of methylcyclopentane...

graphy. The results for various crudes are tabulated. The maximum content of methylcyclopentane (72.5%) in the naphthenic concentrate is obtained from the 68-72° fraction of the Mizraan crude at a total naphthenes content of 94.2% and at an output of 30% of concentrate per fraction. Maximum content (68.8% of cyclohexane) has been found in a naphthenic concentrate from the 78-84° fraction at a total naphthenes content of 97.7% and at an output of 32.7% per fraction. It is possible to obtain from these concentrates, through rectification, a fraction of methylcyclopentane containing 96.8% of methylcyclopentane and 3.2% of cyclohexane and a fraction of cyclohexane containing 98.4% of cyclohexane and 1.6% of methylcyclopentane. There are 3 tables.

ASSOCIATION: Institut khimii im. P.G. Melkishvili AN Gruzinskoy SSR (Institute of Chemistry im. P.G. Melikishvili AS Georgian SSR)

SUBMITTED: April 22, 1962

Card 2/2

BENASHVILI, Yu. M

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PHASE I BOOK EXPLOITATION SOV/6195

Nauchnaya konferentsiya institutov khimii Akademiy nauk Azerbaydshanskoy, Armyanskoy i Gruzinskoy SSR. Yerevan, 1957.

Materialy nauchnoy konferentsii institutov khimii Akademiy nauk Azerbaydzhanskoy, Armyanskoy i Gruzinskoy SSR (Materials of the Scientific Conference of the Chemical Institutes of the Academies of Sciences of the Azerbaydzhan, Armenian, and Georgian SSR) Yerevan, Izd-vo AN Armyanskoy SSR, 1962. 396 p. 1100 copies printed.

Sponsoring Agency: Akademiya nauk Armyanskoy SSR. Institut organicheskoy khimii.

Resp. Ed.: L. Ye. Ter-Minasyan; Ed. of Publishing House: A. G. Sikuni; Tech. Ed.: G. S. Sarkisyan.

PURPOSE: This book is intended for chemists and chemical engineers, and may be useful to graduate students engaged in chemical research.

COVERAGE: The book contains the results of research in physical, inorganic, organic, and analytical chemistry, and in chemical engineering, presented at the Scientific Conference held in Yerevan, 20 through 23 November 1957. Three reports of particular interest are reviewed below. No personalities are mentioned. References accompany individual articles.

Materials of the Scientific Conference (Cont.) SOV/6195

Areshidze, Kh. I., and Ye. M. Benashvili. The Action of Urea on Normal Alkanes As a Method of Separating Them From Petroleum. (Institut khimii, Akademiya nauk Gruzinskoy SSR).

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A method based on the capacity of urea to react or form complexes with normal alkanes and other straight-chain hydrocarbons has been used to separate C_9 - C_{15} alkanes from fractions of Mirzaani and Norio petroleum boiling at 150-200 and 200-250°C, respectively. The method consists in 1) purification of the petroleum fraction with 75% H_2SO_4, 10% $NaCO_3$ solution, and distilled water; 2) dearomatization by chromatographic adsorption of silica gel; 3) crystallization of urea/hydrocarbon complexes from a solution of urea in CH_3OH (20% on wt. of urea); 4) dissolution of crystals in distilled water followed by the extraction of the hydrocarbon layer with ethyl ether; and 5) distillation of the extract in a perforated plate column at 40 to 10 mm Hg residual pressure. The Mirzaani and Norio

Card 7/11

2/2

BENASHVILI, Ye.M.

Comparative data on the separation of methylcyclohexane from petroleum fractions. Zhur. prikl. khim. 36 no.10: 2265-2270 O '63. (MIRA 17:1)

1. Institut khimii imeni P.G. Melikishvili AN Gruzinskoy SSR.

ACCESSION NR: AP4040898 S/0251/64/034/003/0553/0560

AUTHOR: Benashvili, Ye. M.

TITLE: The problem of obtaining high-octane components of automotive and aviation gasolines from low-octane straight-run gasolines

SOURCE: AN GruzSSR. Soobshcheniya, v. 34, no. 3, 1964, 553-560

TOPIC TAGS: gasoline, automotive gasoline, aviation gasoline, low octane gasoline, high octane gasoline, thiourea, thiourea treatment, thiocarbamide, naphthene, isoparaffin, fuel component, straight run gasoline

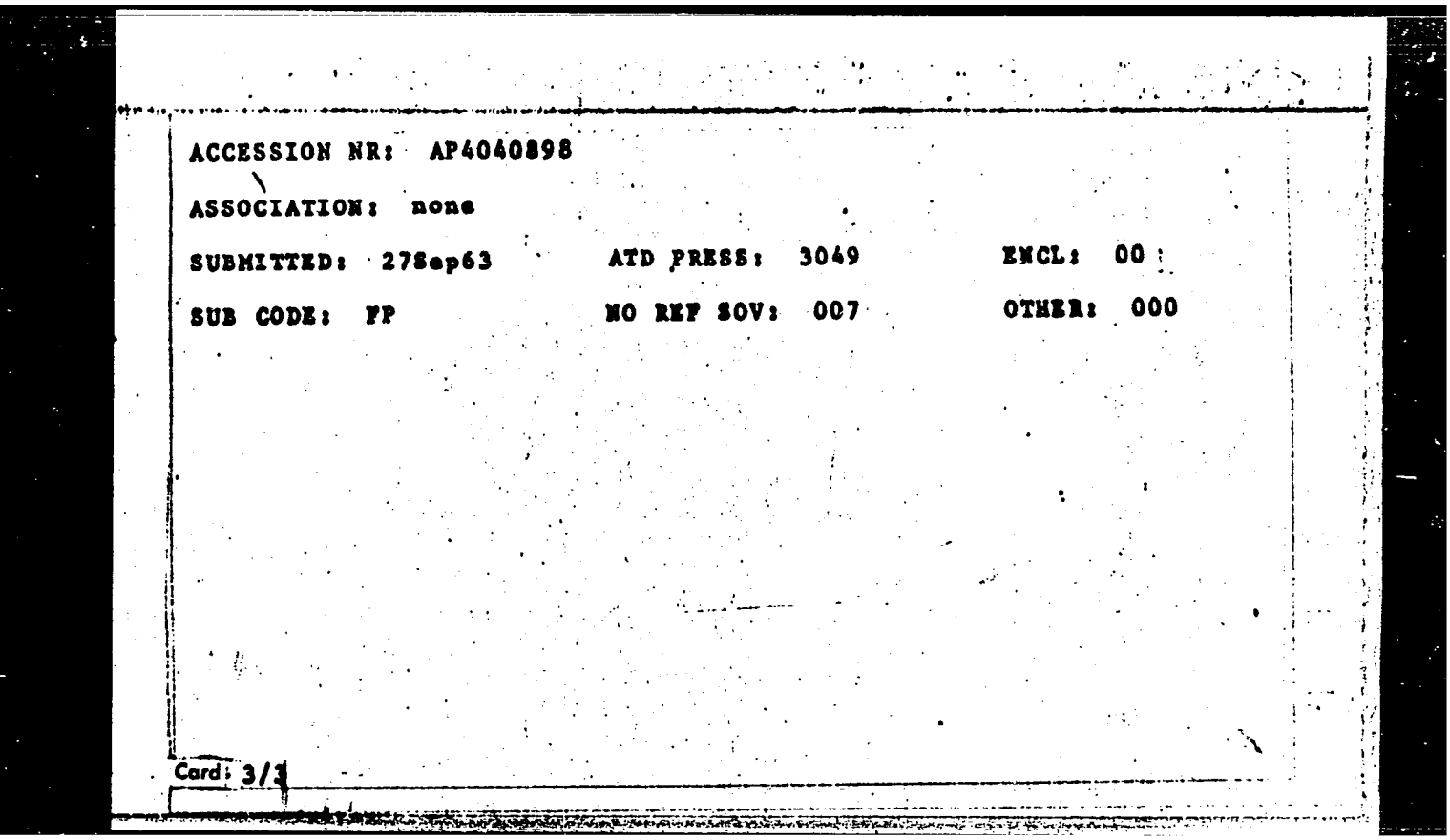
ABSTRACT: A method for the separation of high-octane gasoline fractions from low-octane straight-run gasolines by treatment with thiourea is recommended in a study recently completed at the Institute of Chemistry of the Georgian Academy of Science. The experiments were conducted on wide (150—174C) fractions of straight-run gasolines from Turkmenian, Mirzaan, Satskheni, Anastasiyevskaya, and Baku crudes. The fractions were treated with thiourea used in a ratio to gasoline of 0.8 : 1. Methyl alcohol in amounts of 15—20% was used as the

Card 1/3

ACCESSION NR: AP4040898

activator; ethyl or isopropyl alcohol were also used for this purpose besides methyl alcohol. The mixture was stirred for 30 minutes at room temperature, whereupon the unreacted gasoline was separated, the sediment washed with petroleum ether, and decomposed with a double amount of water under heating and then distilled. The distillation was completed on reaching 100C. Thiourea, petroleum ether, and residual gasoline from the petroleum ether washings were recovered. The fractions separated by means of the thiourea treatment (a yield of 19.1—24.5%) contained predominantly naphthenes with significant amounts of isoparaffins and small amounts of aromatics. These fractions, called "concentrates," had a lower distillation range and a higher octane rating, i.e., in the range of 75—80, than the initial gasoline fractions, whose octane rating was in the range of 60—69. The octane rating of the concentrates could be increased to the 93—97.8 range by adding 4 ml ethyl fluid R9. After treatment the low-octane residues could be used either as a component for automotive gasoline A66, or as raw material for catalytic reforming (aromatic hydrocarbons or fuel components), or for thermocatalytic or thermal cracking for the production of C_2—C_4 olefine monomers. Orig. art. has: 4 tables.

Card 2/3



ACCESSION NR: AP4040898

ASSOCIATION: none

SUBMITTED: 27Sep63	ATD PRESS: 3049	ENCL: 00
SUB CODE: PP	NO REF SOV: 007	OTHER: 000

Card: 3/3

BENASHVILI, Ye.M.

Thermocatalytic transformations of low-octane gasolines after their treatment with thiourea. Soob. AN Gruz. SSR 38 no.2: 309-314 My '65. (MIRA 18:9)

1. Institut fizicheskoy i organicheskoy khimii imeni Melikishvili AN Gruzinskoy SSR, Submitted October 27, 1964.

L 45775-66 EWP(j)/EWT(m)/T RM/JW/JW/WE

ACC NR: AP6031951 SOURCE CODE: UR/0251/66/043/003/0599/0606

61
B

AUTHOR: Benashvili, Ye. M.

ORG: Academy of Sciences GruzSSR, Institute of Physical and Organic Chemistry im. P. G. Melikishvili (Akademii nauk GruzSSR, Institut fizicheskoy i organicheskoy khimii)

TITLE: Separation of the paraffin-cycloparaffin portion of gasoline using thiourea and molecular sieves

SOURCE: AN GruzSSR. Soobshcheniya, v. 43, no. 3, 1966, 599-606

TOPIC TAGS: jet fuel, ~~component~~, naphthene, thiourea, gasoline, heat of combustion

ABSTRACT: A process has been proposed for producing naphthene concentrates from gasoline fractions. It is noted that by virtue of their high heat of combustion and higher density, naphthene fuel components decrease the fuel consumption for a given operational range of an aircraft. To ensure as complete as possible an extraction of naphthenes, as well as the separation of a high-percentage isoalkane concentrate, the gasoline fraction is subjected to treatment with thiourea (0.8 parts/1 part gasoline) to remove the naphthenes, then to selective adsorption on a CaA molecular sieve to remove n-alkanes, then to dearomatization by chromatographic adsorption on silica gel, and finally to a second thiourea treatment (0.5/1) to separate the remaining naphthenes from isoalkanes. By this process, different gasoline fractions were

Card 1/2

L 45775-66

ACC NR: AP6031951

separated into naphthene concentrates, isoalkane concentrates, and mixtures of n-alkanes and aromatic hydrocarbons. A flow sheet is given for the process. Orig. art. has: 1 figure and 4 tables. [SM]

SUB CODE: 21,07 SUBM DATE: 16Dec65/ ORIG REF: 006/ OTH REF: 004/ ATD PRESS: 5085

Card 2/2

BENBASAT, Ester

Artificial culture of mushrooms. Nauka i tekh mladezh no.3:18-19 Mr '57.

HENBASAT, I., st. nauchen sutrudnik

Preservation of the drilled tooth for final cementing of the crown. Stomatologiia, Sofia no.5:306-309 1954.

1. Iz Republikanskiia nauchno-izsledovatelski stomatologichen institut, Sofia Direktor: dots. T.Burkov.
(INLAYS,
preserv. of drilled tooth for final cementing)
(CROWN AND BRIDGEWORK,
preserv. of tooth after drilling for final cementing of crown)

BENBASAT,N.

Production of direct black dye No. 3. p. 24.

TEZHKA PROMISHLENOST, Vol. 5, No. 3, 1956, Sofiya, Bulgaria.

SO: East European Accessions List, Lib. of Cong., Vol. 5, No. 10, Oct. 1956.

[redacted] BENBASAT, N.

BULGARIA/Chemical Technology - Chemical Products and Their Application. Industrial Synthesis of Dyestuffs I-15

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 13185

Author : Benbasat Neli, Tsanev Dimit"r
Title : Concerning the Production of the Dyestuff Direct Black 3

Orig Pub : Tezhka promishlenost, 1956, 5, No 3, 24-32

Abstract : Investigation of the process of preparation of the azo dyestuff Direct Black 3, obtained by first coupling bis-diazotized benzidine with H-acid in an acid medium and then coupling the thus obtained mono-azo dye, which contains a diazo-group, with m-phenylene diamine (I). During the first coupling, at the beginning of the reaction, the pH of the medium must be maintained at 1-2, and at the end of the coupling, at ~ 5, which is effected by an addition of soda. On reduction of m-dinitroaniline to I, iron filings are used in an amount corresponding to ~ 50% excess over the theoretical.

Card 1/2

BULGARIA / Chemical Technology. Varnishes. Paints. H
Varnish-Paint Coatings.

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 75790.

Author : Gerasimov, Tsanev, ~~Benbasat.~~
Inst : Not given.
Title : Grape Oil as a Raw Material for the Production of Drying Oil and Varnishes.

Orig Pub: Tezhka prom-st, 1957, 6, No 6, 37-42.

Abstract: It was found that the semi-drying grape oil (G) obtained by the extraction of grape seeds possesses a high polymerization ability. After eight hours at 320°C. and a vacuum of 400-600 mm., a viscosity of 38 poise is reached, an iodine number (IN) of 72 (as compared with 122 for the initial G), acid number (AN) of 25 (that of the initial oil, 31). The AN is in-

Card 1/2

BULGARIA / Chemical Technology. Varnishes. Paints. H

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 75790.

Abstract: creased to 35 upon polymerizing at atmospheric pressure and in the presence of accelerators. The O can be successfully used for the production of oil alkyds and varnished, modified nitrocellulose varnished and also for the production of drying oils used in prime coating of wood and for the preparation of oil enamels. The drying oil from flax oil and M prepared in a ration of 80:20 has a high IN (150) and its physical chemical indices completely satisfy the standard requirements set for a natural flax drying oil.

Card 2/2

Country : Bulgaria
Category : Chemical Technology. Chemical Products and Their Applications--Fats and oils. Waxes. Soaps and detergents. Flotation agents. H-25
Abs. Jour. : Referat Zhur--Khim., No 11, 1959, 40280
Author : Gerasimov, M., Tsanev, D., and Benbasat, N.
Institut. : not given
Title : The Physicochemical Properties of Grape-Vine Oil and Its Applications
Orig Pub. : Khranitelna Promishlenost, 7, No 10, 24-26 (1958)
Abstract : No abstract.

Card: 1/1

BENBASAT, N.; TSANEV, D.

Obtaining amides of the high fatty acids. p. 22.

TEZHKA PROMISHLENOST. (Ministerstvo na tezhkata promishlenost) Soffia, Bulgaria
Vol. 8, no. 9, Sept. 1959.

Monthly List of East European Accessions (EEAL) LC, Vol. 9, No. 2, Feb. 1960
UNCL

GERASIMOV, M.; TSANEV, D.; BENBASAT, N.

Oil from grape seeds and its use in the preparation of drying oils. Maśl.-zhir. prom. 27 no. 2:13-16 '61. (MIRA 14:3)

1. Nauchno-issledovatel'skiy institut khimicheskoy promyshlennosti, Bolgariya.
(Drying oils) (Grapes)

TSANEV, D.; BENBASAT, N.

Technology of nitrogen derivatives in higher fatty acids. Pt.2. Khim i industriia 34 no.6:209-211 '62.

TSANEV, D.; BENBASAT, N.

Preparation and properties of synthetic wax. Godishnik Inst khim prom 2:99-106 '63.

First azo coupling of the direct black 3 dye. 118-125

TSANEV, D.; BENBASAT, N.; MECHKARSKI, St., d-r

Production of quaternary ammonium compounds. Khim i industriia 34 no. 1: 4-7 '64.

9,2510 (1003, 1020, 1067)

AUTHORS: Khatskelevich, V. A., Benben, G. V.

TITLE: Increasing the power amplification factor of the transmitter stages

PERIODICAL: Elektrosvyaz', no. 12, 1961, 62 - 64

TEXT: The number of h-f stages of a transmitter can be reduced by increasing as far as possible the power amplification factor of the last stages. For long and medium waves, using the common-cathode arrangement, it is still recommended to choose the power amplification factor K_p of a triode amplifier stage about equal to 10, i.e.:

$$K_p = \frac{P_{\sim ampl}}{P_{\sim exc}} \approx 10, \qquad (1)$$

$P_{\sim ampl}$ being the oscillating power of the amplifier, and $P_{\sim exc}$ the power of its exciter. In the case of multigrid amplifier tubes, $K_p \approx 15 \div 20$ etc. However, the "concealed power" in the tubes is such that it is sometimes possible to increase considerably the amplification factor and to bring it to 100, and even more instead of 10. Particularly important, from this point of view, is the calculation of the amplifier grid-circuit, especially in the case of new tubes. For this

Card 1/3

Increasing the power amplification factor...

calculation, the authors refer to the method of V. A. Khatskelevich [Ref. 3: "Elektricheskiy raschet rezhimov novykh generatornykh triodov" ("Electric calculation of the operating conditions of new oscillator tubes"), Radiotekhnika, 1959, no. 3]. This method, developed for new triodes, can also be applied to other tubes, and particularly to tubes of older types; it is sufficient to change the empiric correction coefficients and to state:

$$k_{0g} \approx 0.35 \div 0.55, \quad k_{1g} \approx 0.4 \div 0.6. \qquad (3)$$

The greatest effect, as regards the increase of K_p, can be obtained with tubes having a small grid current, for instance the older types "Г-433" ("G-433") and also some of the more recent types, such as "ГУ-4А" (GU-4A), "ГУ-89А" (GU-89A) etc. The experimental check of the possibility of obtaining high values of K_p was therefore carried out with such tubes. A medium-wave 7-stage AM-transmitter with grid-bias-modulation in the stage preceding the penultimate one was used in the tests (the three last stages were push-pull stages). The last stage (amplifier of modulated oscillations) contained 6 "G-433" tubes giving an oscillating power $P_{\sim T} \approx 100$ kw in the telephone point, and a power $P_{\sim max} = 4P_{\sim T} \approx 400$ kw in the peak point (at m = 1). The penultimate stage contained two 20 kw-"Г-431" (G-431) tubes,

S/106/61/000/012/009/010
A055/A127

Increasing the power amplification factor...

and the grid-bias modulation stage two 3 kw-"ГК-3000" (GK-3000) tubes. The tubes of the last and penultimate stages satisfied, according to their rated characteristics, the condition $K_p \approx 10$. Calculation showed however the existence of a very great "power reserve" in these stages. A new penultimate stage was therefore designed, using four 750 watt-"ГУ-80" (GU-80) tubes (operating in push-pull also). Even at a screen-grid voltage $E_{g2} \approx 500$ v (instead of the rated 600 v), this new penultimate stage permitted easily the former operation of the last stage. The power of the penultimate stage in the "telephone point" being $P_T \approx 600$ watts, the power amplification factor of the last stage was

$$K_p' = \frac{P_{\sim T \text{ last st.}}}{P_{\sim T \text{ penult.st.}}} \approx \frac{100 \cdot 10^3}{600} \approx 170 \qquad (!!)$$

There are 3 figures and 3 Soviet-bloc references. The following names of Soviet-bloc authors or scientists are mentioned in the article: A. M. Pisarevskiy, I. E. Sirokin and E. I. Belen'kiy.

SUBMITTED: March 1, 1961

Card 3/3

KHATSKELEVICH, V.A.; BENBEN, G.V.

Increase in the power gain factor of the generating stages.
Elektrosviaz' 15 no.12:62-64 D '61. (MIRA 14:12)
(Radio--Transmitters and transmission)

Country : POLAND K
Category: Forestry Forest Cultures.

Abs Jour: RZhBiol., No 12, 1958, No 53489

Author : Benben, Kazimierz
Inst : -
Title : Pruning the Branches of Young Poplars

Orig Pub: Las polski, 1957, 31, No 13, 4-6

Abstract: The article gives recommendations on the technique and timing of pruning lateral shoots of the poplar. It notes the expediency of starting pruning when the plant is still in the nursery and continuing the practice on the permanent culture area.

Card : 1/1

COUNTRY : Poland
CATEGORY : Forestry. General.

ABS. JOUR. : RZhBiol., No. 14 1959, No.63166

AUTHOR : Benben, Kazimierz
INST. : Polish Scientific-Research Forest Institute
TITLE : The Harm Caused Forests by Industrial Smoke-Gas Materials

ORIG. PUB. : Las polski, 1957, 31, No. 17, 6-7

ABSTRACT : Observations were made by the Polish Scientific-Research Forest Institute in the region of the Poznan phosphorus fertilizer factories. Within a radius of 3.5 km the woody vegetation is subjected to the action of SO_2 and SO_3, H_2SO_4, CO, NO_2, SiF_4, HF and certain others. The concentration of these materials considerably exceeds tolerable standards; as a consequence, all species in the region of the factory were ruined. Desiccation gradually envelops the entire crown and the tree dies. The vegetation of the lower layers -- shrubs and grassy plants-- also suffers extremely from the poison. The greatest resistance to gas is shown by black alder, moun-

CARD: 1/2

DUNTRY :
ATEGORY :

BS. JOUR. : RZhBiol., No. 14 1959, No. 63166

UTHOR :
NST. :
ITLE :

RIG. PUB. :

BSTRACT : tain ash and lilac; average resistance by oak, elm and bird cherry. Symptoms of the disease caused by smoke-gas materials in pine, spruce, larch, birch, oak, maple and some shrubs are described.--L. A. Ryabov

ard: 2/2

BENBENEK, S.

G-2

POLAND/Organic Chemistry. Synthetic Organic Chemistry.

Abs Jour: Referat Zhur-Khimiya, No 4, 1958, 11251

Author : Malinowski, S. and Benbenek, S.
Inst :
Title " Some Reactions of Diazonium Salts with Unsaturated Compounds. V. Reactions with α, β -unsaturated Aldehydes.

Orig Pub: Roczniki Chem, 30, No 4, 1121-1127 (1956) (in Polish with an English summary)

POLAND/Organic Chemistry. Synthetic Organic Chemistry. G-2

Abs Jour: Referat Zhur-Khimiya, No 4, 1958, 11251.

lished that these compounds when subjected to the action of piperidine eliminate HCl and are converted to the derivatives of cinnamic aldehyde. Peracetic acid in acetic acid solution oxidizes the above reaction products to the corresponding derivatives of 3-chloropropionic acid. Preparation: 76.5 gms p-chloroaniline in 225 gms 20% HCl with 50 gms ice are diazotized with a solution of 123 gms 33% $NaNO_2$, 33 gms I in 150 gms acetone and 5 gms $CuCl_2$ are added to the reaction mixture, and after 24 hrs the organic layer is dissolved in 200 gms C_6H_6 and distilled; 3-(p-chlorophenyl)-2-chloropropionaldehyde (II) is obtained, yield 37.6%, bp 136-137°/7 mm. 4 gms II and 25 gms piperidine are heated for 20 hrs and 300 ml of the reaction mixture steam distilled; the residue gives p-chlorocinnamic aldehyde, yield 34%, mp 61-62° (from CH_3OH + ether). 10.1

Card : 2/3

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Abs Jour: Referat Zhur-Khimiya, No 4, 1958, 11251.

gms II and 50 gms of peracetic acid solution (prepared by the addition of 100 gms 28% H_2O_2 to 450 gms acetic anhydride and allowing the solution to stand for 24 hrs) are allowed to stand for 24 hrs and the oil is separated; 500 ml of the latter are steam distilled; the residue gives 2-chloro-3-(p-chlorophenyl)-propionic acid (III), yield 52%, mp 98.5-99.5°. Similarly 12.75 gms p-chloroaniline in 25 ml 30% HCl, 10 ml water, 30 gms ice, 20 ml 33% $NaNO_2$, 7 gms acrylonitrile in 50 ml acetone, and 2 gms $CuCl_2$ give the nitrile of III (IV), yield 53%, bp 162°/16 mm. 2 gms IV, 30 gms 15% HCl, and 10 gms glacial CH_3COOH are heated for 20 hrs and 200 ml of the reaction mixture are steam distilled; the residue gives III, yield 39%. For Communication IV see RZhKhim, 1955, 40111.

Country : POLAND
Category: Organic Chemistry. Organic Synthesis

G

Abs Jour: RZhKhim., No 17, 1959, No. 60759

Author : Malinowski, S.; Benbenek, S.; Pasynkiewicz, J.; Wojciechowska, E.
Inst : -
Title : Study of the Aldol Reactions in Gaseous Phase. V.

Orig Pub: Roczn. chem., 1958, 32, No 5, 1089-1096

Abstract: Investigated are effects of temperature, nature and dosage of catalyst (silica gel precipitated from a water solution of water glass by means of H_2SO_4 at pH of 8-9, or silica gel, containing 1% NaOH, KOH or RbOH, obtained by mixing of 135 gr of silica gel and 135 ml of 1% caustic solution with the consequent drying in vacuum at approx.

Card : 1/3

Country : POLAND
Category: Organic Chemistry. Organic Synthesis

G

Abs Jour: RZhKhim., No 17, 1959, No. 60759

100°), on the yield of alkylvinylmethylketons when condensing in the gaseous HCHO phase with acetone (I), methylethylketone (II) and methyl--n-propylketone (III). The maximum yield of methylvinylketone (39.1%) derived from the condensation of HCHO with I (molar ratio of 1:3, rate of mixture flow of 41-42 ml/hr.) is obtained with the use of silica gel containing 1% RbOH at 280° and at a loading not > 19.7 gr HCHO per 1 liter of catalyst per hour. The maximum yield of α-methylvinylmethylketone (30.5%) derived from HCHO and II is obtained at 280° on the silica gel at a loading not > 25.7 gr HCHO

Card : 2/3

Country : POLAND
Category: Organic Chemistry. Organic Synthesis

G

Abs Jour: RZhKhim., No 17, 1959, No. 60759

per 1 liter of catalyst per hour, at a mixture flow rate of 70 ml/hr. The maximum yield of α-ethylvinylmethylketone (22.5%) derived from HCHO and III (to homogenize the mixture CH_3OH is added) is obtained on the silica gel at 260°, loading not > 26 gr HCHO per 1 liter of catalyst per hour. For Part IV see Ref. Zhur-Khimiya, 1959, No 2, 4608. -- L. Yanovskaya

Card : 3/3

15.8610 2209 25994 P/014/60/039/003/003/005
A221/A126

AUTHORS: Dahlig, Włodzimierz, Benbenek, Stanisław, Deczkowski, Bogdan

TITLE: Polymerization of α-olefines in the presence of solid catalysts. I. Influence of oxygen on the polymerization in presence of chromium catalyst

PERIODICAL: Przemysł Chemiczny, v. 39, no. 3, 1960, 167 - 169

TEXT: This is the first article of a series. At the Zakład Technologii Organicznej I, Politechniki Warszawskiej (Warsaw Polytechnic, First Organic Technology Section), research is being carried out into the synthesis of organo-metallic compounds, especially alkyl aluminum derivatives as catalyst components for low-pressure polymerization of ethylene. Apart from this, polymerization of ethylene in neutral solvents in presence of partly reduced CrO_3 and higher pressures is being investigated. The basic condition for a successful synthesis is the purity of ethylene. The most detrimental impurities are the molecular oxygen, water, carbon mono-and dioxide organic compounds of oxygen and sulphur, and acetylene. As the first step of investigation, the harmful influence of molecular oxygen in presence of partly reduced chromium trioxide CrO_3 (deposited on silica-

Card 1/2

alumina) on the polymerization process was quantitatively assessed. For the experiment ethylene containing only 0.001 % of oxygen was used. As solvent a petroleum ether of 50 - 73°C boiling range was used. The activated catalyst carrier, composed of 90% SiO_2 and 10% Al_2O_3, was saturated with 1.6 N chromic acid solution, dried at 120°C, and 3 batches of it were activated in air, nitrogen and hydrogen respectively. The process of polymerization was carried out for 3.5 h in 750 ml autoclave at 20 atm pressure and 133 - 135°C temperature. Another series of experiments was carried out with ethylene, to which oxygen was added in proportions of 0.001, 0.02 and 0.083%. It was found that increased oxygen content adversely affects the efficiency of the process and the molecular weight of the polymer obtained. There are 3 figures, 1 photograph, 2 tables and 7 references: 1 Soviet-bloc and 6 non-Soviet-bloc. The references to the English-language publications read as follows: (Ref. 3: Pat. amer. 2692257; 2692258; (1954)); (Ref. 6: A. Clark, J. Hogan, L. Banks, W. Lanning, Ind. Eng. Chem., 48, 1152 (1956).

ASSOCIATION: Zakład Technologii Organicznej I, Politechnika Warszawska (Warsaw Polytechnic, First Organic Technology Section)

SUBMITTED: November 20, 1959

MALINOWSKI, S.; JEDRZEJEWSKA, H.; BASINSKI, S.; BENBENEK, S.

Studies on aldolic reactions in gaseous state. Rev chimie 6 no.1: 5-19 '61.

1. Academie Polonaise des Sciences, Varsovie.

DAHLIG, Wlodzimierz; BENBENEK, Stanislaw; DECZKOWSKI, Bogdan

Polymerization of α-olefins in the presence of solid catalysts. An explanation of the influence of oxygen upon the polymerization of ethylene in the presence of the oxide-chromic catalyst. Tworzywa wielkoczast 6 no.9:283-284 S '61.

1. Katedra Technologii Organicznej I, Politechnika, Warszawa.

(Polymers and polymerization)

BENC, I.

Chemical Abst.
Vol. 48 No. 3
Feb. 10, 1954
Synthetic Resins and Plastics

Polarometric determination of chlorine in vinyl chloride copolymers. Milan Pražák, I. Benc, and Z. Bartásek. *Chem. Průmysl* 3, 297-8(1953).—0.01 g. of dried out polymer is wrapped in cigaret paper and burned in a closed flask between two Pt electrodes by means of a thin glowing Pt wire. The flask contains 50 cc. H_2O, and O_2 is introduced for 5 min. during the ignition process. The flask is shaken to absorb the combustion gases. Ten cc. of the produced soln. is pipetted out to a small beaker, 10 cc. 0.2*N* H_2SO_4 and approx. 0.01 g. water-free Na_2SO_3 are added, the liquid is stirred and after 5 min. transferred to the polarographic cup which was previously rinsed with the soln. and the bottom was covered with Hg. The potential used for the measurement is +0.130 to +0.135 mv. on the drop. From the detd. normality of the soln. the amt. of Cl in the sample is calcd. The method is suitable for polymers with up to 73% Cl content and meant for routine plant control. The accuracy of the method is 0.5% (the results differ by 0.5%).

L. A. Helwich

BERC, S.

BERC, S.; SVORC, J. "Virus diseases affecting sugar beets. I. Contribution to partial physiological determination of the morphologic symptoms of mosaic disease." Sbornik. Annals. Rada B., Praha, Vol 27, No 1, Feb 1954, p. 107

SO: Eastern European Accessions List, Vol 3, No 10, Oct 1954. Lib. of Congress

CZECHOSLOVAKIA / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6324

Author : Benc, Stanislav
Inst : Semchitsa Scient.-Research Institute
Title : The Selection of Mangel-Wurzel Varieties

Orig Pub : Za vysokom urodu, 1957, 5, No 4, 77-78

Abstract : Semchitsa (Czechoslovakia) Scientific Research Institute divides mangel-wurzel according to its productivity and starch content in 3 basic groups: coarse, semi-saccharine and saccharine. The coarse variety occupies by its yield of the fodder mass the first place, but it takes the last place by its starch content. Three [sic!] coarse mangel-wurzel varieties are cultivated: Kostelets, Barres, Yellow Unicum and Buchan

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6324

Yellow Valets. The two of the last named varieties exceed the half saccharine one by 10 - 20% in weight. Coarse mangel-wurzel grows almost at the surface of the earth; this circumstance facilitates the harvesting of the crop, but it deteriorates in storage. The yielding capacity of semi-saccharine mangel-wurzel is less than that of the coarse varieties. It contains more nutrition substances and produces more haulm. It requires a deeper soil cultivation. Red semi-saccharine mangel-wurzel contains the largest amount of starch. Saccharine mangel-wurzel has the greatest content of starch in comparison with other varieties, but the weight of its edible

CZECHOSLOVAKIA / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6324

root is the smallest, although it produces more haulm and dry matter by 15 - 20%. The harvesting is difficult because the edible root lies deep under the surface of the earth.
-- E. A. Parshina

Card 3/3

BENC, Stanislav, inz., dr.; LAPAR, Miroslav

Results of the experiments with sugar beet protection against Cercospora beticola Sacc. Rostlin vyroba 9 no.1:27-38 Ja '63.

1. Vyzkumny ustav reparsky Semcice, pracoviste Stupice (for Benc). 2. Vyskumne reparske pracovisko Ciky (for Lapar).

Country : Czechoslovakia
CATEGORY : K-7

ABS. JOUR. : RZBiol., No. 19, 1958, No. 87172

AUTHOR : Sane, S.
INST. :
TITLE : Dependence of Yields of Sugar Beets on Variety.

ORIG. PUB. : Za vysokou urodu, 1957, 5, No 11, 244-245

ABSTRACT : An analysis of climatic and soil factors, and of variety-characteristics which have an influence on the yield of roots, the sugar content, and yield of sugar per unit area.

CARD: 1/1

BENC, Stanislav, inz. dr.

Contribution to the problem of resistance breeding of the sugar beet to the yellow virus. Rost vyroba 9 no.5:541-552 '63.

1. Vyzkumny ustav reparsky, Semcice, pracovista Stupice.

BENC, Stanislav, inz., dr.

Application of the mass crossing tests on sugar beets.
Rost vyroba 9 no.10:1065-1078 O '63.

1. Vyzkumny ustav reparsky, Semcice.

BENCA, Jan, MUDr, sek. lekar

Treatment of deep trichophytosis with podophyllin. Cesk. derm. 29 no.3:202-205 Je '54.

1. Z dermatovenerologickej kliniky PLFSU v Kosiciach (prednosta univ. doc. MUDr E.Maly).

(PODOPHYLLIN, therapeutic use,
*trichophytosis, deep)
(RINGWORM, therapy,
*podophyllin, deep trichophytosis)

BENCAT, F.

SCIENCE

Periodicals: BIOLOGIA Vol. 10, no. 6, 1955

BENCAT, F. The edible chestnut (Castanea sativa Mill) in Slovakia. p. 764

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 5, May 1959, Unclass.

BENCAT, FRANTISEK

Arboretum Mlynany, vzdyzeleny park. (Vyd. 1.) Martin, Osveta, 1956, 70 p.
(Mlynany Arboretum, the evergreen park. 1st ed. English, Franch, and Russian summaries. maps, bibl.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

BENCAT, F.

"A Sketch From the Arboretum of Mlynany."

p. 128 (Krasy Slovenska, Vol. 34, No. 4, Apr. 1957, Bratislava, Czechoslavakia)

GEOGRAPHY & GEOLOGY Periodicals

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 11, Nov. 1958

BENCAT, F.

"Foundation of the Dendrologic Department of the Czechoslovak Botanical Society"

Biologia. Bratislava, Czechoslovakia. Vol. 14, no. 2, 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 7, July 59, Unclas

CZECHOSLOVAKIA

Frantisek BENCAT [Affiliation not stated; probably director of facility]

"Activity and Prospects of the Mlynany Arboretum of the SAV [Slovenska akademia vied, Slovak Academy of Sciences].)"

Bratislava, Biologia, Vol 18, No 1, 1963; pp 85-92.

Abstract: Historical, organizational and scientific review of the arboretum. Founded in 1892 and administratively integrated into the SAV in 1953, it now has a staff of 47; between 1954 and 1962, 121 articles were published by staff; 1350 species of plants are grown; much international exchange activity; four divisions: introduction, physiology, reproduction, and genetics. Research and other projects in each of these are described. Seven tables.

L 59579-65

ACCESSION NR: AP5020540 CZ/0049/64/000/009/0717/0721

AUTHOR: Bencat, Frantisek

TITLE: Dendrological notes from a visit to some botanical gardens and dendrological objects in Germany

SOURCE: Biologia, no. 9, 1964, 717-721

TOPIC TAGS: botany, horticulture

Abstract: Historical reasons for the extensive development of German botanical gardens are discussed. The disadvantages are considered due to maintenance of old pattern, where decorative purpose and the ensuing great number of working hours prevail over a purely scientific interest. Various trees found in different gardens are described and evaluated. Influence of commercial horticultural firms selling plants to private individuals is discussed.

Card 1/2

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000204630001-5"

L 59579-65

ACCESSION NR: AP5020540

ASSOCIATION: Arboretum Mlynany Slovenskej akademie vied, Vieska nad Zitavou (Mlynany Arboretum, Slovak Academy of Sciences)

SUBMITTED: 07May64	ENCL: 00	SUB CODE: LS
NR REF SOV: 000	OTHER: 000	JPRS

Card 2/2

L 60315-65

ACCESSION NR: AP5021087 CZ/0049/64/000/012/0912/0919

AUTHOR: Bencat, Frantisek (Benchat', Frantishek)(Engineer, Candidate of sciences) (Mlynany)

TITLE: Morphological and physiological bisexuality of Castanea sativa Mill., in the conditions of Slovakia

SOURCE: Biologia, no. 12, 1964, 912-919

TOPIC TAGS: plant reproduction, plant morphology

ABSTRACT: The occurrence of trees with both sexes is extremely rare in Slovakia. Some show a small part of their flowers of the other sex. In most cases, these flowers tend to be degenerated and sterile. The female flowers of male trees do, however, sometimes bear a few fruit. Orig. art. has 5 figures.

ASSOCIATION: Arboretum Slovenskej akademie vied, Mlynany vo Vieske nad Zitavou (Arboretum of the Slovak Academy of Sciences)

SUBMITTED: 10Mar64 ENCL: 00 SUB CODE: LS

NO REF SOV: 001 OTHER: 013 JPRS

Card 1/1

BERCAT, M.

New relations between machine-tractor stations and collective farms during the period of handing over the machines to the collective farms. p. 271

Praha. MECHANISACE ZEMEDELSTVI. Vol. 9, no. 12, Dec. 1959. Praha, Czechoslovakia

Monthly list of East European Accession (EEAI) LC Vol. 9, no. 2 Feb. 1960. Uncl.

BENCE, E.

LENGYEL, I., GOTH, E., ADLER, V., BENCE, E.

New method in diagnosis of hypophyseal and adrenocortical insufficiency. Orv. hetil. 91:26, 25 June 50. p. 805-7

1. Attila Jozsef Budapest Metropolitan General Hospital.

CLML 19, 5, Nov., 1950

BENCE, Laszlo

Culture and the working classes. Borsod szemle 5 no. 2: 113-114 '61.

1. Tudomanyos Ismeretterjeszto Tarsulat Orszagos Kozpontjanak tudomanyos titkara.

BRUCE, T.

"Modern Theodolites", (To be contd) P. 229. (FOLDMERESZANY KOZLEMENYEK, Vol. 5, No. 4, 1953, Budapest, Hungary)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 1, Jan. 1955, Uncl.

BENCEL, Augustin, inz.

Linear programming methods help to discover the production reserves. Drevo 19 no.4:127-130 Ap '64

1. Tatra nabytok National Enterprise, Pravenec.

BENCEVIC, Josip, Dr.

Surgical treatment of bone fractures of extremities. Med. arch., Sarajevo 9 no.4:69-96 July-Aug 55.

(FRACTURES,
extremities, surg. indic. (Ser))
(EXTREMITIES, fract.
surg. indic. (Ser))

BENCEVIC, Dr. J.

Modern concepts of pathology and treatment of ileus. Lijec.vjes. 77 no.3-4:222-223 Mar-Apr '55.
(INTESTINAL OBSTRUCTION,
pathol. & ther.(Ser))

BENCEVIC, Josip, Dr.

Modern concept of pathology and treatment of acute ileus.
Voj. san. pregl., Beogr. 13 no.7-8:334-341 July-Aug 56.

1. Kirurski odjel opce bolnice u Osijeku.
(INTESTINAL OBSTRUCTION,
postop. in acute abdom. surg. (Ser))
(ABDOMEN, ACUTE, surgery,
postop. ileus (Ser))

RADU,A., conf. ing.; BENCHE, V., ing.

Thermodynamic study on the air feeding of a pneumatic installation. Ind. lemnului 15 no.5:173-178 My'64

COUNTRY : Bulgaria
CATEGORY : H-17

ABS. JOUR. : RZKhim., No. 16 1959, No. 58115

AUTHOR : Kolchev, L. and Benchee, I.
INST. : Not given
TITLE : The Identification of the Alkaloids Papaverine, Codeine, Dionine, and of Their Salts in Medicinal Preparations by Paper Chromatography
ORIG. PUB. : Farmatsiya (Bulgaria), 8, No 2, 29-32 (1958)

ABSTRACT : Optimum conditions for the identification of the above-indicated alkaloids have been established.

From authors' summary

CARD: 1/1

BENCHEV, B.

Constantinople (German) and French grapes. Prir i znanie 14 no.2:5-7 '61. (KEAI 10:7)
(Grapes)

BENCHEV, Iv. B

BULGARIA/Chemical Technology - Chemical Products and Their Application . Fermentation Industry. I-12

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2892

Author : Dekov, L., Benchev, Iv.
Inst : -
Title : Amelioration of Brandy Distallates by Means of Oxidation-Reduction Processes.

Orig Pub : Lozarstvo i vinarstvo, 1957, 6, No 1, 30-34

Abstract : Laboratory and production scale experiments were carried out on distillation of brandy alcohol from wine containing added H_2O_2 (2.5 ml of 30% solution per 100 liters of wine). The experimentally produced alcohol was found to contain twice as much aldehydes as the controls. Degustation revealed an improvement in the quality of the alcohol treated with H_2O_2, in comparison with the untreated alcohol. Experiments were also undertaken on treatment of the brandy distillates with H_2O_2 (25-50 ml of 30% solution per 100

Card 1/2

BULGARIA/Chemical Technology. Chemical Products and Their Applications. Fermentation Industry. II

Abs Jour: Ref Zhur-Khim., No 8, 1959, 29240.

Author : Dekov, L. and Benchev, I. B.
Inst : Ministry of Agriculture and Forests.
Title : Biochemical and Technological Evaluation of Vratsa Muscat Vines Grown in the Pleven Region.

Orig Pub: Nauchni Trudy M-vo Zemled i Gorite, Ser Rasteniyevudstvo, 3, No 4, 43-48 (1958) in Bulgarian with English and Russian summaries)

Abstract: Vratsa muscat (VM) gives excellent dry and dessert wines, both straight and in blends with Dinyat and Yuniblan wines. The dessert wines made from VM have been analyzed by paper chromatography and found to contain ten amino acids: cysteine, aspartic acid,

Card : 1/2

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BULGARI./Chemical Technology. Chemical Products and Their Applications. Fermentation Industry. H

Abs Jour: Ref Zhur-Khim., No 6, 1959, 29240.

glutaminic acid, serine /hydroxyalanine/, glycine, alanine, tyrosine, arginine, isoleucine, and one peptide. Wines from Yuniblan, Kokorko, and Gynza grapes have been found to contain smaller amounts of amino acids. -- G. Valuyko.

Card : 2/2

COUNTRY : BULGARIA
CATEGORY : Chemical Technology. Chemical Products and Their Applications. Fermentation Industry. H
ABS. JOUR. : RZhKhim., No 17, 1959, No. 62480

AUTHOR : Dekov, L; Benchev, I.; Balev, M.; Koyevski, N.; *
INSTITUTE : -
TITLE : Improvement of Plum Whiskeys in the Troyanskiy Rayon (Bulgaria).
ORIG. PUB. : Nauchni tr. M-vo zemed i gozhite. Ser. rasteniyevudstvo, 1958, 3, No 5, 41-46

ABSTRACT : For the quality improvement of plum whiskeys, their supplementary redistillation was investigated with the addition (in different combinations) of: grape juice concentrate of 5 cm^3 per 1 ℓ, of 0.5 cm^3 of 30% H_2O_2 per 1 ℓ, and also thermal treatment at 70° for approx. 4 days. A sample that was subjected to thermal treatment with the addition of H_2O_2 and grape juice concentrate had the best bouquet qualities. Addition of H_2O_2 and copper shavings with the subsequent thermal

*Dimov, G.

Card: 1/2

H - 111

3

COUNTRY :
CATEGORY : H

ABS. JOUR. : RZhKhim., No 17, 1959, No. 62480

AUTHOR :
INSTITUTE :
TITLE :

ORIG. PUB. :

ABSTRACT : treatment also improved the bouquet. Based on laboratory tests and on the experiments, two methods of improving qualities of plum whiskeys are recommended for the adoption by the industry: 1) additional distillation with the addition of H_2O_2, copper shavings, tanning substances derived from oak, with subsequent thermal treatment and 2) thermal treatment of whiskey with the addition of grape juice concentrate (without the redistillation. -- I. Skurkhin.

Card: 2/2

BULGARIA/Chemical Technology - Fermentation Industry. H-27

Abs Jour : Ref Zhur - Khimiya, No 24, 1958, 83263

Author : Dekov, L., Benchev, I.
Inst : -
Title : The Improvement in Quality of Grape and Plum Vodka.

Orig Pub : Lozarstvo i vinarstvo, 1958, 7, No 2, 43-46.

Abstract : To improve the quality of grape and fruit vodka, their thermal treatment is suggested in the presence of 2 to 3 grams/liter (with a sugar content of 50%) of a grape or fruit concentrate with the introduction of H_2O_2 (14 milliliters of a 12% H_2O_2 solution per 100 liters) as well as without it. The duration of the treatment at 55-60°C. is from 4-5 months, and at 65-70°C. up to 89 hours. A change in the amino acid composition by the thermal treatment has been noted. In the case when a grape concentrate has been introduced prior to treatment, the acids aspartic and glutamic, serine, glycine, alanine, histidine, leucine and

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Abs Jour : Ref Zhur - Khimiya, No 24, 1958, 83263

proline were found, and when the introduction was done after treatment, alanine and proline were found as well as the newly formed -aminobutyric, tyrosine, valine and isoleucine. Upon treatment of plum and apple vodka, there were formed more cystine, lysine, arginine, -aminobutyric acid, tyrosine, valine. The data concerning the change in composition of volatile impurities (higher alcohols, aldehydes, acetals, ethers, volatile acids) are contradictory. The amount of furfurol is increased upon treatment.

Card 2/2

17(1),
AUTHORS: Stoyev, K. D., Mamarov, P. T., Benchev, I. B.

SOV/20-125-6-54/61

TITLE: Influence of Fertilizers on the Composition of the Ascending Sap Stream in the Vine (Vliyaniye udobreniy na sostav voskhodyashchego toka vinogradnoy lozy)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 6, pp 1367-1370 (USSR)

ABSTRACT: According to the data presented in scientific publications, there is a difference in the uptake by day and the uptake by night of mineral substances by the plant (Refs 1,2): There are certain periods within which there is a rhythm of this uptake (Ref 4). Said difference also concerns the roots during vegetation. It is connected with the plant's passing through its growth and development stages (Refs 6,7). The authors tried to determine the influence of fertilizers on the sugar and amino acid contents of the liquid exudated on the "weeping" of the vine. For this purpose the saps were collected of N-, P-, and K-fertilized as well as of unfertilized vines (Zarchin variety, grafted upon Montikola). The saps, in a five-fold vacuum concentration, were chromatographed (Refs 8,9), and the

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Influence of Fertilizers on the Composition of the Ascending Sap Stream in the Vine

sugar types were studied in accordance with reference 10. Said influence was determined on the 2nd, 10th, and 44th days after fertilizer application. Figures 1 and 2 present the determination results. In figure 1 no difference, with regard to sugar contents, can be noticed between plants of the fertilized and unfertilized plots. However, quantitative methods revealed a much higher sugar content on the 2nd day after fertilization than could be observed in the case of unfertilized plots. This difference was equalized by the 10th day (Table 1). Most probably the sugar content is the result of the action of superphosphate phosphorus, and of the more intensive starch decomposition in the vine roots (Refs 11-14). Figure 2 shows the changes in the amino acid content with the influence of fertilization (after 2 days): 9 and 14 acids, respectively, in individual vines, as against 7-8 acids in the controls. The amino acid stains in the saps of fertilized vines were larger in the chromatograms. On the 10th and 44th days the differences had disappeared. From this the authors conclude that the uptake and conversion of mineral substances occurs most energetically during the first days following fertilizer application to the soil (analogous to references 16, 17). Thus the assimilation

Influence of Fertilizers on the Composition of the Ascending Sap Stream in the Vine

by the roots of nitrogen is effected rapidly, whereas its conversion into amino acids takes place in a certain sequence: at first alanine, and eventually dicarboxylic acids are synthesized. The synthesis of the basic and aromatic amino acids is said to take place much later by means of trans-amination (Ref 17). Phosphorus fertilization probably also favored the increase in the amino acid content in the fertilized vines (Ref 18). The investigations by the authors have shown ammonium nitrogen to be taken up by the vine roots in an organic form. From there it is transported upwards into the individual organs in the form of various amino acids. The most intensive conversion of inorganic nitrogen into amino acids takes place during the first days after its application to the soil. There are 2 figures, 1 table, and 18 references, 12 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut vinogradarstva i vinodeliya, g. Pleven, Bolgariya (Scientific Research Institute of Viniculture and Pressing, City of Pleven (Bulgaria))

SOV/20-125-6-54/61

Influence of Fertilizers on the Composition of the Ascending Sap Stream in the Vine

PRESENTED: January 28, 1959, by A. L. Kursanov, Academician

SUBMITTED: August 30, 1958

Card 4/4

STOYEV, K.D.; MAMAROV, P.T.; BENCHEV, I.B.

Chromatographic analysis of sugars and free amino acids of grapevine sap [with summary in English]. Fiziol. rast. 6 no.4:408-414 Jl-Ag '59. (MIRA 12:10)

1.Scientific Research Institute of Viticulture and Winemaking, Pleven.

(Grapes) (Amino acids) (Sugars)

DEKOV, L.I.; BENCHEV, I.B.

Biochemical and technological characteristics of the "Vrachanski misket" grape variety from the Plevna region. Biokhim. vin. no.6:88-94 '60. (MIRA 13:10)

1. Nauchno-issledovatel'skiy institut vinogradarstva i vinodeliya (g. Plevna, Bolgariya).
(Bulgaria--Wine and wine making)

STOYEV, K.D.; MAMAROV, P.T.; BENCHEV, I.B.

Sugars and free amino acids during the maturation and dormancy of the grapevine. Fiziol. rast 7 no.2:145-150 '60. (MIRA 14:5)

1. Scientific Research Institute of Viticulture and Wine Making Plevna, Bolgaria.
(Grapes) (Sugars) (Amino acids)

1. BENCHKOVSKIY, V. F.

2. USSR (600)

"Deformation of Earth Surfaces Due to Extrinsic Factors." Doklady AN USSR. New Series, Volume 60, No. 6, 1948 (981-984).

9. Meteorologiya i Gidrologiya, No. 3, 1949.
[redacted] Report U-2551. 30 Oct 52.

BENCIC, Dusan, doc. inz.

Medium errors of leveling, conditioned by instrumental and subjective influences. Geod 'list 17 no.1/3:3-20 Ja-Mr '63.

1. Geodetski fakultet, Zagreb, Kaciceva 26.

ACC NR: AP6027688 SOURCE CODE: YU/0006/66/000/01-/0017/0040

AUTHOR: Boncic, Dusan--Bonchich (Docent; Graduate engineer; Zagreb)

ORG: Geodesic Faculty, Zagreb (Geodetski fakultet)

TITLE: Importance of the optical and physiological properties of the eye during measurement processes 22

SOURCE: Geodetski list, no. 1-3, 1966, 17-40

TOPIC TAGS: optic instrument, geodetic instrument, vision, measuring instrument

ABSTRACT: During operations involving subjective optical instruments (telescopes and microscopes) which are important constituents of geodesic instruments, the eye of the observer becomes a part of the overall optical system and thus the accuracy of measurements depends on the optical-physiological properties of the eye. In the first part of this comprehensive article, the author discusses the eye as the observer (physiology of the eye, its optical function, physiological contrast, physiological nystagmus, accomodation, general adaptation, absolute sensitivity, and sharpness). In the second, he views the eye as an instrument (adaptation during measurements, relationship between the eye accomodation and the measuring process, entoptic effects and eye fatigue, and the testing and training of sight). Any discussion of the geodesic measurement should always pay due respect to the possible effects due to the peculiarities of the eye. Orig. art. has: 7 figures.

[JPRS: 36,844]

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Card 1/1 0917 1183

YUGOSLAVIA

BENCIC, Dr Z., and OST[illegible], Dr Z., of the A. Stampar Public Health School (Skola Nar[illegible] Zdravlja "A. Stampar") in Zagreb and the Public Health Sta[illegible] (Dom Narodnog Zdravlja) in Daruvar.

"Infectious Hepatitis in the Area of Koncanica."

Belgrade, Narodno Zdravlje, Vol 19, No 7-8, 1963, pp 246-248.

Abstract: /Authors' Serbocroatian summary modified/ The epidemic of infectious hepatitis in the vicinity of the Bosnian village of Koncanica lasted more than a year and a half. The authors tried to determine whether the early hospitalization of sufferers might prevent the further spread of the disease, but the isolation of patients did not check the epidemic. The length of the epidemic was probably due to the types of settlements (one village along both sides of a road, another huddled in the midst of a woods, another on neighboring hills, all with a single common elementary school) and hygienic conditions (poorly protected wells, no sewage disposal system), but early hospitalization may have played a part. Two tables, one graph, four Yugoslav references.

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